

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/007209 A1

(51) International Patent Classification⁷: **A61L 17/10**,
A61F 2/02

(21) International Application Number:
PCT/IB2004/002318

(22) International Filing Date: 19 July 2004 (19.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20031090 17 July 2003 (17.07.2003) FI
20045223 15 June 2004 (15.06.2004) FI

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

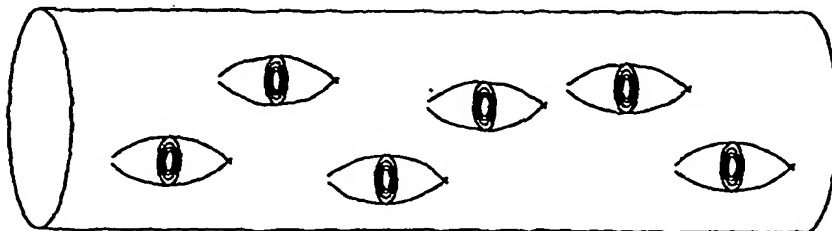
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **SYNTHETIC, BIOABSORBABLE POLYMER MATERIALS AND IMPLANTS**



(57) Abstract: The invention relates to synthetic, bioabsorbable polymer materials and implants, like fibres, sutures, meshes and other tissue management, wound closure or tissue engineering devices, which contain: a) a bioabsorbable polymeric matrix; b) antibiotic and/or anti-inflammatory agent particles or mixture thereof, dispersed in

the matrix, and c) optionally an additive agent to facilitate device recognition and/or handling to facilitate the use and application of finalized product. In the matrix, cavities around the particles are induced by mechanical processing of the matrix phase. A preferred embodiment of the present invention is a device (suture) that provides a sustained release of antibiotic agent over several days to several weeks for the prevention or treatment of infection. The sutures may be effectively implanted into or in the vicinity of: 1) infected tissue, 2) potentially infected tissue, or in tissues where infection, should it occur, leads to disastrous consequences.

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